

Tobacco Industry Efforts to Defeat the Occupational Safety and Health Administration Indoor Air Quality Rule

Katherine Bryan-Jones, Lisa A. Bero, PhD

Although smoking restrictions are an important component of tobacco control policy for many reasons,^{1–9} no national regulation exists. The Occupational Safety and Health Administration (OSHA) proposed the first federal indoor air quality (IAQ) rule in April 1994. The rule proposed ventilation as a way to control indoor air contaminants, and separately ventilated smoking rooms to control environmental tobacco smoke (ETS) exposure.¹⁰ OSHA withdrew the proposed rule from consideration in December 2001.¹¹

OSHA's procedure requires that the agency review the scientific basis for regulation, draft regulation, accept public commentary, and then finalize the regulation in light of any relevant commentary.^{12,13} Public participation in the regulatory process is important^{14–16} but can be influenced by special interest groups.¹⁷ The tobacco industry is an interest group that has been concerned with indoor air regulations.¹⁸

We examine tobacco industry documents describing the industry's efforts to influence deliberations on the OSHA IAQ rule. We describe industry strategies, as others have done (e.g., in references 19–23), and also examine their implementation.

METHODS

Tobacco Industry Internal Documents

To identify tobacco industry strategies, we searched 4 tobacco industry document Web sites (<http://www.pmdocs.com>, <http://www.tobaccoinstitute.com>, <http://www.lorillarddocs.com>, <http://www.tobaccodocuments.org>) between April 27 and July 25, 2000. We inductively coded the 112 documents we found for strategies, date, and individuals or groups mentioned.

OSHA Public Hearings

To test whether the industry strategies were implemented, we analyzed transcripts of

Objectives. We describe tobacco industry strategies to defeat the Occupational Safety and Health Administration (OSHA) Indoor Air Quality rule and the implementation of those strategies.

Methods. We analyzed tobacco industry documents, public commentary on, and media coverage of the OSHA rule.

Results. The tobacco industry had 5 strategies: (1) maintain scientific debate about the basis of the rule, (2) delay deliberation on the rule, (3) redefine the scope of the rule, (4) recruit and assist labor and business organizations in opposing the rule, and (5) increase media coverage of the tobacco industry position. The tobacco industry successfully implemented all 5 strategies.

Conclusions. Our findings suggest that regulatory authorities must take into account the source, motivation, and validity of arguments used in the regulatory process in order to make accurately informed decisions. (*Am J Public Health.* 2003;93:585–592)

OSHA public hearings held between September 20, 1994 and March 13, 1995 (373 individual testimonies, obtained from OSHA and available from the authors upon request). We coded the primary, disclosed affiliation of each presenter and his or her position toward the rule (in favor of, against, or neutral). We coded an individual as having a primary tobacco industry affiliation if he or she was an employee of a tobacco company/producer or an industry-affiliated organization. Individuals with other primary affiliations who acknowledged that their presentation was prepared at the request of the tobacco industry were coded as having a secondary affiliation with the tobacco industry. Because we relied on disclosures, we probably underestimated the number of tobacco industry-affiliated individuals.^{24,25} Presentations coded as neutral (e.g., pointing out typographical errors) (n=4) were excluded from further analysis. We coded the remaining 369 testimonies for implementation of the strategies identified in the tobacco industry documents.

Media Coverage

We analyzed the coverage and content of print media articles of the OSHA deliberations. Using previous methods,²⁶ we identified newspaper and magazine articles on the OSHA regulation published between November 1, 1993,

and July 7, 1999, by searching LEXIS-NEXIS. We coded 170 unique full-coverage newspaper and magazine articles for date, position (in favor, against, neutral/balanced coverage), affiliation of individuals quoted or cited, and content related to the tobacco industry strategies.

Coding

We were trained to use the coding instrument. Coding categories were developed inductively and from previous research.^{16,18,27} The software QSR-NUD*IST facilitated data management.

We used the 2-tailed Fisher exact test to test for differences in the types of arguments used by presenters.

RESULTS

Overview of Tobacco Industry Documents

The 112 documents dated from 1987 to 1998, with most between 1993 and 1996. Table 1 lists the 5 most frequently occurring tobacco industry strategies.

Overview of OSHA Public Hearings

Eighty-five percent (315/369) of presenters opposed the rule, and 15% (54/369) supported it. The majority of opposition (54%, 171/315) was from the tobacco indus-

TABLE 1—Tobacco Industry Strategies to Influence the OSHA Indoor Air Quality Rule: Internal Tobacco Industry Documents, 1987–1998

Strategy	Documents, No. (%) (n = 112)
1. Maintain scientific debate about the health effects of passive smoking	60 (44%)
2. Delay the rule	58 (42%)
3. Redefine the scope of the rule	46 (34%)
4. Recruit a coalition of labor and businesses to oppose the rule	42 (31%)
5. Increase media coverage of the tobacco industry position	41 (30%)

Note. OSHA = Occupational Safety and Health Administration.

TABLE 2—Primary Affiliations of Testifiers, by Position: OSHA Public Hearings, September 20, 1994 through March 13, 1995

Primary affiliation	Position Toward Rule		
	In Favor, No. (%) (n = 54)	Against, No. (%) (n = 315)	Total, No. (%) (n = 369)
Businesses	10 (19%)	210 (67%)	220 (60%)
Consultants	7 (13%)	29 (9%)	36 (10%)
Labor organizations	15 (28%)	17 (5%)	32 (9%)
Tobacco employees/businesses	0 (0%)	26 (8%)	26 (7%)
University/college scientists	7 (13%)	11 (3%)	18 (5%)
Other affiliation (e.g., private citizens, health care professionals)	5 (9%)	9 (3%)	14 (4%)
Government	7 (13%)	5 (2%)	12 (3%)
Lay activist organizations (e.g., Maryland Group Against Smokers' Pollution, National Smokers Alliance)	3 (6%)	8 (3%)	11 (3%)

Note. OSHA = Occupational Safety and Health Administration.

try. As shown in Table 2, individuals with primary tobacco industry affiliations accounted for only 7% (26/369) of the testifiers. However, 39% (145/369) of individuals had a secondary tobacco industry affiliation. Forty-nine percent (108/220) of business representatives, 56% (20/36) of consultants, 50% (9/18) of university scientists, 64% (7/11) of activist organizations, and 8% (1/12) of government affiliates appeared at the tobacco industry's request.

As shown in Table 3, in the hearings the arguments used by those in favor of the rule differed from the arguments used by those against the rule.

Implementation of Tobacco Industry Strategies

Strategy 1: Maintain the scientific debate.

The most frequently mentioned strategy was to maintain scientific debate about the ad-

verse health effects of environmental tobacco smoke (Table 1). The strategy included disputing existing science,^{28–31} proposing new studies,^{32,33} and recruiting scientists to testify at the OSHA hearings or submit written commentary.^{34–36} Before the OSHA rule was proposed, Philip Morris allocated a majority (\$77 000) of its February 1993 “Monthly Budget Supplement Re: ETS/OSHA Federal Activities” to “intensify the debate” surrounding scientific standards.³⁷

The tobacco industry commissioned studies that it could present as evidence to OSHA. In March 1993 a tobacco industry-affiliated scientist identified research projects that could convince OSHA that environmental tobacco smoke is only a small contributor to indoor air pollution and that it could be controlled by ventilation.³⁸

Implementation of strategy 1. The tobacco industry succeeded in making scientific argu-

ments a major feature of its opposition. Ninety-four percent (17/18) of tobacco industry-affiliated consultants and 100% (9/9) of tobacco industry-affiliated scientists stated that science did not support the OSHA rule, compared with 13% (2/16) of non-industry-affiliated consultants and 11% (1/9) of non-industry-affiliated scientists ($P = .00001$ and $P = .0004$, respectively). Tobacco industry-affiliated researchers were also more likely to criticize the quality of individual studies ($P = .00001$). Tobacco industry scientists often cited industry-funded studies, such as those funded by the Center for Indoor Air Research,³⁹ as evidence that data did not support the rule.

Strategy 2: Delay the Rule. The second most frequently mentioned strategy was to delay the rule-making process^{29,40} (Table 1). A June 1994 document described Philip Morris's plan to “convert the promulgation process from bureaucratic fiat to political dogfight. . . . Over the next month, if we have anything to do with it, this opposition is going to intensify and we're going to give the poobahs at OSHA a taste of what democracy is really like.”⁴¹

The industry was aware that preventing the rule would be their best option but that delaying the OSHA rule would also have advantages: “Moving the hearings into 1995 gives more states the chance to pass accommodation/preemption. And the more states that pass accommodation/preemption the harder it will be politically for OSHA to issue regulations that are at variance with state laws. In addition, we can put the time to good use by mobilizing our allies in labor and the state legislatures and having them talk to Secretary of Labor Reich directly, and make sure the political heat stays turned up to the max.”⁴¹

OSHA's requirement to respond to public commentary gave the industry an opportunity to delay the rule: “Our goal is to generate 100–200 000 letters by then [August 14, 1995, the closing date of the commentary period]. . . . This volume of comments—unprecedented in OSHA's history—will do more than turn on the political heat, it will put the bureaucratic machinery on overload. By law, OSHA must review every one of the comments it receives before it holds hearings. Currently the hearings are scheduled for September 20 through October 14. If we gener-

TABLE 3—Arguments Used, by Position: OSHA Public Hearings, September 20, 1994 through March 13, 1995

Arguments Used in the OSHA Hearings	Position Toward Rule	
	In Favor, No. (%) (n = 54)	Against, No. (%) (n = 315)
Science	31 (57%)	99 (31%)
Science of rule is in dispute	6 (11%)	43 (14%)
Science does not support the rule	0 (0%)	67 (21%)
Science supports the rule	31 (57%)	13 (4%)
Quantity of evidence is sufficient or is insufficient	19 (35%)	66 (21%)
Quality of science is adequate or is inadequate	10 (19%)	45 (14%)
Scope of Rule	54 (100%)	314 (100%)
No federal regulation is necessary	0 (0%)	146 (46%)
Voluntary measures are sufficient or not	2 (4%)	110 (35%)
Rule should be comprehensive or not (including environmental tobacco smoke and other indoor air contaminants)	45 (83%)	41 (13%)
ETS should be considered	29 (54%)	272 (86%)
ETS and IAQ should be separately regulated	0 (0%)	13 (4%)
Rule represents a smoking ban	7 (13%)	96 (30%)
Rule is too complex, costly, or difficult to implement	0 (0%)	158 (50%)
Ventilation is or is not the solution	12 (22%)	79 (25%)
General ventilation issues should be considered (e.g. maintenance, installation, requirements, etc. of ventilation systems)	32 (59%)	77 (24%)
Alternative solutions are possible	22 (41%)	61 (19%)
Accommodation is or is not a viable alternative	3 (6%)	103 (33%)
Preemption is or is not a viable alternative	0 (0%)	6 (2%)
Economics	14 (26%)	200 (63%)
Rule will hurt business	1 (2%)	190 (60%)
Rule will not hurt business/is good for business	14 (26%)	5 (2%)
Economic surveys regarding business impact should be considered	1 (1%)	17 (5%)
Market pressures should determine smoking restrictions	0 (0%)	30 (10%)

Note. ETS = environmental tobacco smoke; IAQ = indoor air quality. OSHA = Occupational Safety and Health Administration.

ate as many comments as we intend to, and RJ Reynolds pitches in with still more, they won't have a prayer of making their deadline—and that's good news for us."⁴¹

Implementation of strategy 2. The tobacco industry implemented its strategy to "put the bureaucratic machinery on overload." OSHA received over 100 000 written comments, more than it had ever received.⁴² The Tobacco Institute⁴³ and Philip Morris submitted their comments on the final days of the commentary period,⁴⁴ thereby requiring OSHA to begin its review of this voluminous commentary at the latest possible date.

The tobacco companies also delayed the hearing process. In May 1994, R.J. Reynolds requested a 60-day extension of both the

comment period and the starting date of the hearings.⁴⁵ The hearings, originally scheduled to end in October 1994, were extended until March 1995. During the extended hearings, 120 of the 130 individuals who spoke disclosed that Philip Morris solicited their testimony. All were against the rule. On November 22, 1994, Philip Morris representatives caused additional delays by refusing to testify as scheduled on December 1, 1994.⁴⁶ R.J. Reynolds also postponed its testimony until January 1995.

Strategy 3: Redefine the scope of the rule. As shown in Table 1, redefining the scope of the rule was the third strategy described in the tobacco industry documents. First, the tobacco industry promoted the idea that volun-

tary measures, rather than federal regulations, were sufficient safeguards against environmental tobacco smoke.⁴⁷

Second, the tobacco industry wanted to ensure that if the OSHA rule progressed, it would be a *comprehensive* standard, rather than a smoking restriction only. The industry's goal was to "keep OSHA focused on developing a broad IAQ regulation without adopting a separate and draconian measure to ban smoking."⁴⁸ The tobacco industry was aware that cost and compliance issues would make a comprehensive IAQ rule more difficult to pass than a rule focusing on only environmental tobacco smoke. For example, the passage of the Washington workplace smoking regulation was facilitated by reducing the scope of the regulation from all IAQ components to environmental tobacco smoke only.^{15,27}

Third, if OSHA were to pass a rule, the tobacco industry wanted it to rely "principally on improved general ventilation."⁴⁹ The tobacco industry wanted OSHA to regulate ventilation of environmental tobacco smoke, rather than eliminate smoking in the workplace.⁴⁷

Fourth, the tobacco industry wanted to "insure that any regulations issued by the Agency include some form of accommodation for the millions of adults who choose to smoke."⁵⁰ A Philip Morris employee argued, "If we get accommodation into the federal regs, the jig is up for the antis. They will be preempted nationwide and they can kiss their state and local restrictions goodbye."⁴¹

Implementation of Strategy 3. Testimony in opposition to the rule was consistent with the tobacco industry's view that federal regulation of indoor air was unnecessary. As shown in Table 3, those against the rule were more likely than supporters to state that voluntary measures should be adopted. A Utah state legislator whose appearance was funded by the tobacco industry testified: "I believe that the issue of smoking regulation is best addressed at the local level or individual businesses. The government closest to the people is best suited to regulate an issue that affects people so dramatically and their businesses and personal lives . . ." (OSHA hearings, January 9, 1995).

The tobacco industry also pressed for a *comprehensive* IAQ rule. For example, an R.J. Reynolds representative stated at the hearings that "there is no justification—scientific or oth-

erwise—to regulate ETS separate and apart from other indoor air components. A perspective that views ETS within the context of its contribution to total IAQ is clearly the most appropriate approach” (OSHA hearings, January 17, 1995).

As shown in Table 3, 30% of those opposed to the rule erroneously stated that the rule was an outright “smoking ban.”

The tobacco industry promoted ventilation as the best solution for all indoor air contaminants, including environmental tobacco smoke. For example, a former Philip Morris scientist suggested that a ventilation system that “cleans the air of both particulate and gas phase contaminants can be used to create a completely acceptable atmosphere . . .” (OSHA hearings, November 22, 1994). Studies show that ventilation does not reduce ETS to safe levels.⁵¹

Fourth, as shown in Table 3, the tobacco industry promoted accommodation and preemption ($P=.00001$). As 1 tobacco industry-affiliated businessman stated, “We currently have a non-smoker accommodation policy which we feel is working very well . . .” (OSHA hearings, October 26, 1994).

Strategy 4: Build coalitions with labor and businesses. The fourth strategy was to form coalitions with labor unions and businesses to oppose the OSHA rule.²⁹ The industry believed that their “greatest ally . . . to date . . . on indoor air quality . . . has been organized labor.”⁵² The industry hoped to recruit business and labor organizations to encourage OSHA “to pursue an indoor air quality rulemaking, as opposed to an ETS [only] rulemaking.”⁴⁷

Philip Morris maintained a sizable budget for recruiting business and labor coalitions.³⁷ For example, Philip Morris allocated \$500 000 to cover the “cost for payments to special consultants who work on OSHA testimony, serve as liaisons to OSHA and participate in AFL-CIO meetings on indoor air quality/workplace smoking issues.”⁵³ The industry planned to “provide labor’s support for IAQ—not smoking bans.”⁵⁴

In a 1992 document containing 2 pages of labor organizations that the Tobacco Institute planned to contact, the author writes: “In most cases, we will then draft their submissions and oversee the actual submission of the document. . . . While this process will be in-

tensive, it will be the best way of assuring that the maximum number of submissions are made.”⁵⁵ A consulting company also proposed that “labor reps. [sic] must be prepared with engaging, powerful testimony that captures the attention of the media and the public, which is likely unaware of the proposed change. Powell Tate will assist in the creation of strong submissions peppered with examples that throw cold water on OSHA’s proposal.”⁴⁸

The proposal continued to state that if OSHA is unable to “make the case for a broad IAQ regulation at this point . . . [OSHA may] rule on the narrow issue of ETS. The end result: OSHA will become ‘smoking police,’ monitoring the lives of workers.”⁴⁸ This “smoking police” rhetoric also appeared in industry documents describing attempts to gain allies among businesses, especially the hospitality industry.^{56,57}

Implementation of Strategy 4. The tobacco industry appears to have successfully formed an ally with labor organizations. A January 14, 1994, letter from the AFL-CIO director of occupational safety and health, undersigned by 19 labor unions, asserted support for ETS to be regulated as part of a *comprehensive* IAQ rule: “We respectfully suggest that to the extent OSHA believes it necessary and appropriate to develop regulations on ETS, that the most suitable context in which to develop these regulations would be as part of a comprehensive standard addressing the whole of the indoor air quality issue in workplaces. . . . A standard addressing both IAQ and ETS in the context of an overall IAQ standard seems to us to be the most logical and efficient way for OSHA to proceed.”⁵⁸

However, this support appears to have changed during the hearings: 53% (17/32) of unions opposed the rule and 47% (15/32) supported the rule (Table 2). On January 20, 1995, the testimony of the AFL-CIO director of occupational safety and health changed from supporting an IAQ rule *including* ETS to supporting an IAQ rule *excluding* ETS. In contrast to her letter from January 1994, she stated: “We would urge that the agency [OSHA] consider the full implications of the environmental tobacco smoke provisions as proposed, and consider modifications in the final rule that would not put OSHA in the position of being the sole or primary agency re-

sponsible for limiting exposure to environmental tobacco smoke (OSHA hearings, January 20, 1995).

As shown in Table 2, the business community dominated the OSHA hearings. However, 49% (108/220) of business representatives appeared with the help of the tobacco industry. Business representatives disclosed that the industry’s help included informing businesses of the rule, soliciting written commentary and testimony, assisting with travel expenses, and meeting with business representatives.

Testimony from businesses was consistent with the tobacco industry’s messages regarding the potential negative economic impact of the rule. Tobacco industry-affiliated businesses were more likely to mention economic concerns (94%, 102/108) than non-tobacco industry-affiliated businesses (60%, 69/112) ($P=.00001$). As shown in Table 3, those against the rule testified that the rule would hurt business (60%) and that customer demand should determine smoking restrictions (10%) and cited economic surveys of business owners (such as the ones commissioned by the industry³⁶) as evidence of the rule’s potential impact (5%).

The “smoking police” rhetoric was used by several labor and business representatives at the hearings. A labor representative stated her fear that OSHA would become “the nation’s smoking police” (OSHA hearings, November 22, 1994). A business owner echoed that “I have to be a member of the smoking police—the enemy” (OSHA hearings, October 27, 1994).

Strategy 5: Increase media coverage of the tobacco industry position. The fifth industry strategy was to promote media coverage of the industry’s position against the rule. In their 1994 “OSHA Media Plan,” Philip Morris outlined their media messages as follows:

“1) OSHA’s proposal is so severe as to virtually guarantee smoking bans—a scheme the majority rejects as unfair;

2) OSHA’s proposal would have a negative impact on business; and

3) OSHA’s proposal is not based on sound science.”⁵⁹

The same document outlines other strategies to affect the extent of media coverage such as “disseminate critical information on

the science of ETS and the sweeping impact of the OSHA proposal,” “develop and promote op-eds on the intrusive and unsupportable nature of the OSHA proposal,” “hold a press briefing directly in advance of OSHA’s public hearing,” “provide materials outlining the industry’s positions on the science of ETS,” and “after the OSHA public hearing, re-package industry and other opposition and re-pitch to columnists, radio talk shows and other reporters.”⁵⁹

To deliver its messages, the tobacco industry planned to encourage media appearances by its allies²⁹ and “aggressively promote Industry witnesses to the media during the OSHA public hearing.”⁵⁹

Implementation of Strategy 5. Although 19% of the 170 news articles opposed the OSHA rule and 19% favored it, the 62% that covered both pros and cons of the rule successfully conveyed the main industry messages. Sixty-one percent of articles mentioned the severity of the rule, smokers’ rights, no need for a smoking ban, and governmental intrusion, 49% mentioned the negative economic impact the OSHA rule would have on businesses, and 45% disputed the scientific evidence to support the rule.

Business representatives were quoted most often in the articles (52%, 88/170), followed by government officials (45%, 77/170), tobacco industry affiliates (29%, 49/170), lay activist organizations (e.g., American Lung Association) (22%, 37/170), and labor representatives (11%, 19/170). Business representatives protested that the rule was a “smoking ban” and raised economic and implementation concerns. Labor representatives expressed their concerns about including ETS as part of the IAQ rule⁶⁰ and used the “smoking police” rhetoric.⁶¹

The industry also held media briefings during key periods in the regulatory process either directly⁶² or indirectly through their allies in business^{43,63} and labor.⁶⁴ As shown in Figure 1, media coverage increased during key periods in the OSHA process. The peak in late 1996 coincided with the release of several surveys by the National Restaurant Association and the National Licensed Beverage Association showing that smoking bans decreased business revenues. These associations have a history of collaboration with the tobacco industry.⁶⁵ Some of the media coverage noted that these surveys were sponsored by Philip Morris.^{66–68} The

results of these surveys contrast with non-industry-supported analyses of the effects that smoking restrictions have on business revenues.⁶⁹

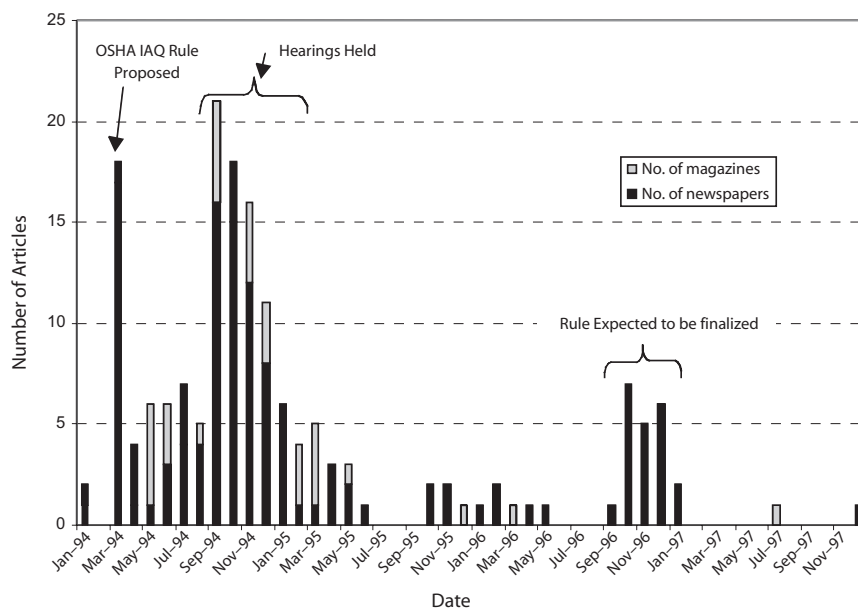
DISCUSSION

The tobacco industry appears to have successfully implemented 5 strategies for delaying, weakening, and ultimately defeating OSHA’s IAQ rule. The strategies included influencing the scientific, the political, and the procedural processes, and media coverage related to the OSHA rule. These efforts began before the rule was officially proposed and continued until the rule was defeated. The strategies and arguments were similar to those used during deliberations on the Maryland and Washington workplace smoking regulations^{18,27} and the California risk assessment of passive smoking.¹⁶

As 1 strategy, the industry maintained the scientific debate surrounding the evidence used to support the rule. Previous studies have shown that the tobacco industry has used a number of tactics to maintain controversy about research on environmental tobacco smoke.^{39,70–78} The industry also realized that political, procedural, and media strategies would help defeat the rule, as suggested by research on other regulations.^{14,79–82}

Through participation in the public commentary period and interactions with the media, the industry disseminated its opinions regarding the scope of the rule to policymakers and the public. Industry comments contributed to debate over the need for regulation, whether environmental tobacco smoke should be regulated separately, and whether or not ventilation was an adequate solution. The industry also attempted to include “accommodation” clauses in order to preempt more stringent local environmental tobacco smoke regulations.

The industry used the political strategy of recruiting coalitions of businesses and labor organizations to back its position. Most of the opposition to OSHA’s IAQ rule came from the tobacco industry, either directly or indirectly through front groups of scientists, government officials, and business representatives. Similar coalition-building strategies have been used by the



Note. OSHA = Occupational Safety and Health Administration. IAQ = Indoor air quality.

FIGURE 1—Print media coverage of OSHA Indoor Air Quality Rulemaking: magazines and newspapers, January 1994 through December 1997.

tobacco industry to influence state and local policymaking.⁶⁵

Finally, the industry was successful in getting its messages disseminated in the media. Our finding that dispute about science was prominent in media is supported by previous research showing that media stories on passive smoking studies emphasized that the research was controversial.^{26,83}

A limitation of this study is that we can describe consistencies, but not establish causality, between tobacco industry plans outlined in the documents and the public commentary and media coverage. However, the tobacco industry clearly planned to dominate the hearing process and managed to do so.

Our findings raise questions about the role of public input in developing regulations. Although it is important to receive feedback from the public regarding the scope and impact of any proposed rule,^{12,13} it is also possible that the process could be dominated by special interest groups.⁸² Interest groups may participate in the process directly and through allies that they support financially. During the public commentary period on the indoor air regulation, 54% of the opposing comments came from a single special interest group—the tobacco industry. Although the tobacco industry is interested in one component of indoor air—environmental tobacco smoke—the industry's involvement in the rule-making process prevented regulation of a variety of indoor air components. Ultimately, the withdrawal of the rule may have been better for public health than the passage of a weakened rule.¹¹ Regulatory authorities must take into account the true source and motivation of opposition, or support, for a regulation, as well as the validity of the arguments used. ■

About the Authors

Katherine Bryan-Jones and Lisa A. Bero are with the Department of Clinical Pharmacy and Institute for Health Policy Studies, University of California San Francisco.

Requests for reprints should be sent to Lisa A. Bero, PhD, Department of Clinical Pharmacy and Institute for Health Policy Studies, Center for Tobacco Control Research and Education, University of California, Box 1390, San Francisco, CA 94143–1390 (e-mail:bero@medicine.ucsf.edu).

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Contributors

K. Bryan-Jones collected the data, coded and analyzed the hearings, media, and tobacco documents, and wrote and edited the manuscript. L.A. Bero designed the overall study, developed the coding instrument, participated in data coding and analysis, and wrote and edited the manuscript.

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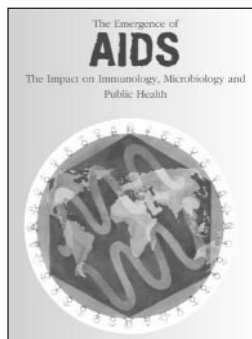
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